

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Christian VIAL et al. Confirmation No.: 5096  
Application No.: 10/680,138 Patent No.: 7,256,170 B2  
Filing Date: October 8, 2003 Patent Date: August 14, 2007  
For: SPIRO COMPOUNDS AS PERFUMING Attorney Docket No.: 81455-5780  
INGREDIENTS

**REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. § 1.323**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Patentees hereby respectfully request the issuance of a Certificate of Correction in connection with the above-identified patent. The corrections are listed on the attached Form PTO-1050. The corrections requested are as follows:

Title Page:

Item (56) **References Cited**, OTHER PUBLICATIONS, Novikova et al. reference, after "stereochemistry, and equilibrium ratios", insert -- of --. This change is requested to correct an error of a clerical or typographical nature.

Column 31:

Line 25 (claim 1, line 10 after formula (I)), after "the wavy and", change "doffed" to -- dotted --. Support for this change appears in application claim 1.

Column 33:

Line 14 (claim 9, line 7), change "tetramethyispiro" to -- tetramethylspiro -- .

Line 15 (claim 9, line 8), change "trimethyispiro" to -- trimethylspiro --.

Support for these changes appears in application claim 9.

Column 34:

Line 7, after "5]dec-7-en-1-ol, 8,9-dimethyl spiro[5,5]", change "unddec" to -- undec --.

Support for this change appears in application claim 14.

Line 59 (claim 18, line 1), before "compound according to claim 14", change "As" to -- A --. This change is requested to correct an error of a clerical or typographical nature and does not involve a change that would constitute new matter or require reexamination.

Column 36:

Line 24 (claim 19, line 7 after formula (I)), after "R<sup>1</sup>, R<sup>2</sup>," change "R<sup>2</sup>" to -- R<sup>3</sup> --.

Support for this change appears in application claim 19.

A fee of \$100 is believed to be due for this request. Please charge the required fees to Winston & Strawn LLP Deposit Account No. 50-1814. Please issue a Certificate of Correction in due course.

Respectfully submitted,

8/30/07  
Date

  
Allan A. Fanucci, Reg. No. 30,256

**WINSTON & STRAWN LLP**  
**Customer No. 28765**

212-294-3311

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO.: 7,256,170 B2

Page 1 of 1

APPLICATION NO.: 10/680,138

DATED: August 14, 2007

INVENTOR(S): Vial et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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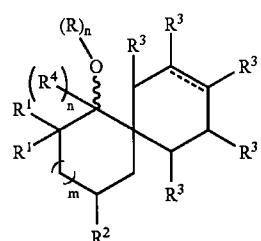
Line 59, before "compound according to claim 14", change "As" to -- A --.

Column 36:

Line 24 (claim 19, line 7 after formula (I)), after "R<sup>1</sup>, R<sup>2</sup>," , change "R<sup>2</sup>" to -- R<sup>3</sup> --.

What is claimed is:

1. A composition comprising, as perfuming ingredient, at least one compound of formula



(I) 5

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wherein the index m represents 0 or 1;

R represents a hydrogen atom, or a methyl or acetyl group;

R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> represent a hydrogen atom or a methyl group;

R<sup>3</sup> represents a hydrogen atom, or a methyl or ethyl group; two, three or four of all the R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and

R<sup>4</sup> representing simultaneously a group containing at least a carbon atom; and

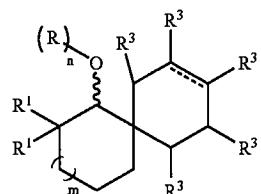
dotted — the wavy and dotted lines represent a double bond, in which case n represents 0;

or

the wavy line represents a single bond, in which case the index n represents 1; and the dotted line represents a single or double bond;

in the form of any one of its optical isomers or diastereomers or of a mixture thereof, and a perfume base.

2. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula

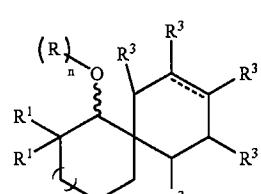


(II)

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wherein n, m, R, R<sup>1</sup>, R<sup>3</sup>, the wavy line and the dotted line have the same meaning as indicated in claim 1.

3. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula (II)



(II)

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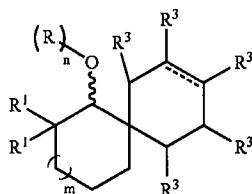
wherein the indexes m and n and the dotted and wavy lines have the same meaning as in claim 1; and

R represents a hydrogen atom or an acetyl group;

R<sup>1</sup> and R<sup>3</sup> represent a hydrogen atom or a methyl group; two, three or four of all the R<sup>1</sup> and R<sup>3</sup> representing simultaneously a methyl group and one, two or three of all the R<sup>3</sup> representing simultaneously a methyl group.

4. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula (II)

(II)



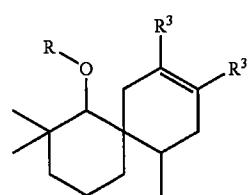
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wherein the indexes m and n and the dotted and wavy lines have the same meaning as in claim 1; and

R represents a hydrogen atom or an acetyl group; one R<sup>1</sup> is a hydrogen atom and the other R<sup>1</sup> represents a hydrogen atom or a methyl group;

R<sup>3</sup> represents a hydrogen atom or a methyl or ethyl group; two, three or four of all the R<sup>1</sup> and R<sup>3</sup> being a group containing at least one carbon atom and one, two or three of all the R<sup>3</sup>, preferably non adjacent, representing a methyl or ethyl group.

5. A composition according to claim 1, wherein in that the perfuming ingredient is a compound of formula



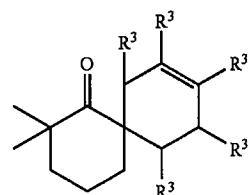
(III)

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wherein R represents a hydrogen atom or an acetyl group; and

the R<sup>3</sup> are identical and represent a hydrogen atom or the R<sup>3</sup> are different and represent a hydrogen atom or a methyl group.

6. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula

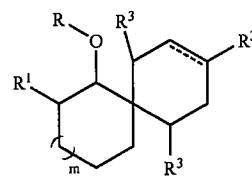


(IV)

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wherein two R<sup>3</sup> represent a methyl group and the other R<sup>3</sup> represent a hydrogen atom.

7. A composition according to claim 1, wherein the perfuming ingredient is a compound of formula



(V)

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wherein R represents a hydrogen atom or an acetyl group; R<sup>1</sup> represents a hydrogen atom or a methyl group; and R<sup>3</sup> represents a hydrogen atom or a methyl or ethyl group and at least two R<sup>3</sup> represent a methyl group; and

trimethylspiro  
tetramethylspiro

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m is 1 and the dotted line represents a single bond, or  
m is 0 and the dotted line represents a double bond.

8. A composition according to claim 1, wherein said composition comprises, as perfuming ingredient, 2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, 2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, or a mixture of 2,2,7,9-tetramethylspiro[5.5]undec-8-en-1-one and 2,2,8,10-tetramethylspiro[5.5]undec-8-en-1-one.

9. A composition according to claim 1, wherein said composition comprises, as perfuming ingredient, 2,2,11-trimethylspiro[5.5]undecan-1-ol, 2,2-dimethylspiro[5.5]undec-8-en-1-one, (1RS,6SR,11SR)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, (1RS,6RS,11RS)-2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, (1RS,6RS,11RS)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, 2,6,8-trimethylspiro[4.5]dec-7-en-1-ol or 7-ethyl-11-methylspiro[5.5]undecan-1-ol or a mixture of 2,2,10-trimethylspiro[5.5]undec-8-en-1-one and 2,2,7-trimethylspiro[5.5]undec-8-en-1-one or a mixture of 6,8-dimethylspiro[4.5]dec-7-en-1-yl acetate and 7,9-dimethylspiro[4.5]dec-7-en-1-yl acetate.

10. A composition consisting of at least a compound of formula (I), as defined in claim 1, and at least one perfume carrier.

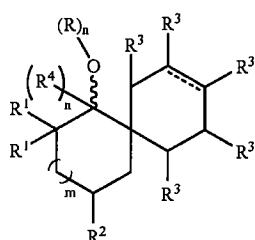
11. A perfumed article comprising:

- i) at least one compound of formula (I), as defined in claim 1; and
- ii) a consumer product base.

12. A perfumed article according to claim 11, wherein said consumer product base is in the form of a solid or liquid detergent, a fabric softener, a perfume, a cologne, an after-shave lotion, a perfumed soap, a shower or bath salt, mousse, oil or gel, a hygiene product, a hair care product, a shampoo, a body-care product, a deodorant, an antiperspirant, an air freshener, a cosmetic preparation, a fabric refresher, an ironing water, a paper, a wipe or a bleach.

13. A method to confer, enhance, improve or modify the odor properties of a perfuming composition or of a perfumed article, which method comprises adding to said composition or article an effective amount of a composition of claim 1 or at least a compound of formula (I) as defined in claim 1.

14. A compound of formula (I)



wherein the index m represents 0 or 1;

R represents a hydrogen atom, or a methyl or acetyl group;

R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> represent a hydrogen atom or a methyl group;

R<sup>3</sup> represents a hydrogen atom, or a methyl or ethyl group; two, three or four of all the R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> representing simultaneously a group containing at least a carbon atom; and

the wavy and dotted lines represent a double bond, in which case n represents 0;

or

the wavy line represents a single bond, in which case the index n represents 1; and the dotted line represents a single or double bond;

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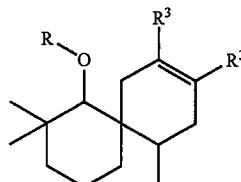
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in the form of any one of its optical isomers or diastereomers or of a mixture thereof, provided that 2,8 dimethyl spiro[5,5]undec-8-en-1-one, 2,9-dimethyl spiro[5,5]undec-8-en-1-ol, 1,9 dimethyl spiro[5,5]undec-8-en-1-ol, 1,8-dimethyl spiro[5,5]undec-8-en-1-ol, 1,7-dimethyl spiro[4,5]dec-7-en-1-ol, 1,8-dimethyl spiro[4,5]dec-7-en-1-ol, 8,9-dimethyl spiro[5,5]undec-8-en-1-one and 7,8-dimethyl spiro[4,5]dec-7-en-1-ol are excluded.

15. A compound according to claim 14, of formula

(III)

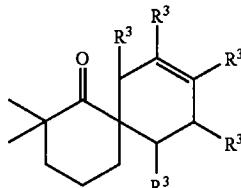


wherein R represents a hydrogen atom or an acetyl group; and

the R<sup>3</sup> are identical and represent a hydrogen atom or the R<sup>3</sup> are different and represent a hydrogen atom or a methyl group.

16. A compound according to claim 14, of formula

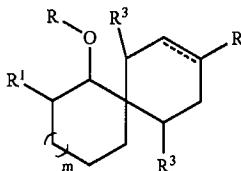
(IV)



wherein two R<sup>3</sup> represent a methyl group and the other R<sup>3</sup> represent a hydrogen atom.

17. A compound according to claim 14, of formula

(V)



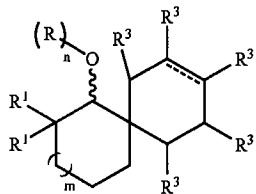
wherein R represents a hydrogen atom or an acetyl group; R<sup>1</sup> represents a hydrogen atom or a methyl group; and R<sup>3</sup> represents a hydrogen atom or a methyl or ethyl group and at least two R<sup>3</sup> represent a methyl group; and m is 1 and the dotted line represents a single bond, or m is 0 and the dotted line represents a double bond.

18. A compound according to claim 14, 2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, 2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, 2,2,11-trimethylspiro[5.5]undecan-1-ol, 2,2-dimethylspiro[5.5]undec-8-en-1-one, (1RS,6SR,11SR)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate, (1RS,6RS,11RS)-2,2,11-trimethylspiro[5.5]undec-8-en-1-ol, 2,6,8-trimethylspiro[4.5]dec-7-en-1-ol, 7-ethyl-11-methylspiro[5.5]undecan-1-ol or (1RS,6RS,11RS)-2,2,9,11-tetramethylspiro[5.5]undec-8-en-1-yl acetate.

A

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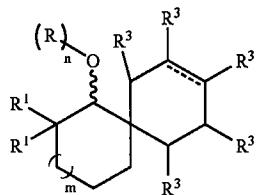
19. A compound according to claim 14, of formula (II)



wherein:

the indexes m and n each individually represents 0 or 1; 15  
 R represents a hydrogen atom, or an acetyl group;  
 R<sup>1</sup> and R<sup>3</sup> represent a hydrogen atom or a methyl group; two, three or four of all the R<sup>1</sup> and R<sup>3</sup> representing simultaneously a methyl group and one, two or three of all the R<sup>3</sup> representing simultaneously a methyl group; R<sup>2</sup> and R<sup>4</sup> represent a hydrogen atom or a methyl group; the wavy and dotted lines represent a double bond, in which case n represents 0; or the wavy line represents a single bond, in which case the index n represents 1; and the dotted line represents a single or double bond.

20. A compound according to claim 14, of formula (II)



wherein:

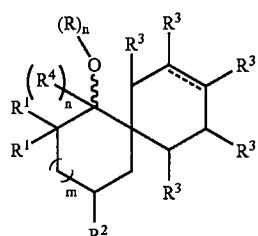
the indexes m and n each individually represents 0 or 1; 40  
 R represents a hydrogen atom, or an acetyl group; one R<sup>1</sup> is a hydrogen atom and the other R<sup>1</sup> represents a hydrogen atom or a methyl group; R<sup>3</sup> represents a hydrogen atom or a methyl or ethyl group; two, three or four of all the R<sup>1</sup> and R<sup>3</sup> being a group containing at least a carbon atom and one, two or three of all the R<sup>3</sup>, preferably non adjacent, representing a methyl or ethyl group; the wavy and dotted lines represent a double bond, in which case n represents 0; or

(II)  
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the wavy line represents a single bond, in which case the index n represents 1; and the dotted line represents a single or double bond.

21. A composition of at least two compounds of formula (I):



wherein the index m represents 0 or 1;

R represents a hydrogen atom, or a methyl or acetyl group;

R<sup>1</sup>, R<sup>2</sup> and R<sup>4</sup> represent a hydrogen atom or a methyl group;R<sup>3</sup> represents a hydrogen atom, or a methyl or ethyl group; two, three or four of all the R<sup>1</sup>, R<sup>2</sup>, ~~R<sup>2</sup>~~ and R<sup>3</sup> representing simultaneously a group containing at least a carbon atom; and

the wavy and dotted lines represent a double bond, in which case n represents 0; or

the wavy line represents a single bond, in which case the index n represents 1; and the dotted line represents a single or double bond;

in the form of any one of its optical isomers or diastereomers or of a mixture thereof, provided that the compositions consisting of 2,8-dimethyl spiro[5,5]undec-8-en-1-one and 2,9-dimethyl spiro[5,5]undec-8-en-1-one, or 1,9-dimethyl spiro[5,5]undec-8-en-1-ol and 1,8-dimethyl spiro[5,5]undec-8-en-1-ol, or 1,7-dimethyl spiro[4,5]dec-7-en-1-ol and 1,8-dimethyl spiro[4,5]dec-7-en-1-ol are excluded.

22. As a composition according to claim 21, a composition containing essentially 2,2,7,9-tetramethylspiro[5,5]undec-8-en-1-one and 2,2,8,10-tetramethylspiro[5,5]undec-8-en-1-one, or a composition containing essentially 2,2,10-trimethylspiro[5,5]undec-8-en-1-one and 2,2,7-trimethylspiro[5,5]undec-8-en-1-one or a composition containing essentially 6,8-dimethylspiro[4,5]dec-7-en-1-yl acetate and 7,9-dimethylspiro[4,5]dec-7-en-1-yl acetate.

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